ABSTRACT

[0052] A method for operating a pixel circuit is disclosed, wherein a saturation control signal is used to control the photoresponse of four-transistor (4-T), five-transistor (5-T) and shared floating diffusion pixel circuits. The saturation control signal is a variable voltage signal, and is transmitted to a transfer transistor or anti-blooming transistor, wherein the signal opens or partially opens the transistor to allow excess electrons to flow from the photodiode region during an integration period. As a result, the effective dynamic range of the pixel circuit can be extended.